

**REMARKS**

Claims 1-11 and 13-20 are pending in this application. Claims 1-11 have been previously withdrawn from consideration. By this Amendment, claims 1-3, 13-17 and 19-20 are amended. Reconsideration based on the above amendments and following remarks is respectfully requested.

Applicants' gratefully appreciate the courtesies extended to Applicants' representative by Examiner Cantelmo during the April 8 personal interview. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below.

Applicants also gratefully acknowledge that the Office Action indicates that claims 15 and 16 are allowed.

**I. The Claims Define Allowable Subject Matter**

The Office Action rejects claims 13, 14 and 17-19 under 35 U.S.C. §103(a) as unpatentable over Japanese Patent Publication No. 11-316220A ("JP '220") in view of U.S. Patent No. 4,845,041 to Scuitto et al. ("Scuitto"). This rejection is respectfully traversed.

During the personal interview, the Examiner indicated that Applicants should provide clarification regarding exactly which claimed features are being cooled. Thus, claims 13, 17, 19 and 20 are amended for the purpose of clarification. Also, claims 1-3 and 15-16 are amended to correct informalities. No new matter has been added.

JP '220 does not disclose the cooling device excluding cooling of the holder and the metal sample, and the cooling device set at a temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering, as recited in claim 13.

Additionally, JP '220 does not disclose an analyzing apparatus including means for cooling at least one target site, at least one of the target sites including at least one of counter electrodes for sputtering, the means for cooling excluding cooling of the holder and the metal sample, and the means for cooling set at a cooling temperature of approximately 50°C or below to

prevent recontamination of the metal sample, as recited in claim 17. Further, JP '220 does not disclose a pretreatment method including the step of cooling at least one of the anodes at a cooling temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering, and the cooling excluding cooling of the holder and the metal sample, as recited in claim 19. Finally, JP '220 does not disclose a pretreatment method including means for cooling at least one of the anodes at a cooling temperature of approximately 50°C or below to prevent recontamination of the metal sample during sputtering, and the means for cooling excluding cooling of the holder and the metal sample, as recited in claim 20. See also specification, page 4, line 29 - page 5, line 1.

The application discloses that when contaminants are removed from the surface of the metal sample S by sputtering in the pre-treatment chamber 4 therein, sputtered contaminants are easier to be adsorbed on a cooler surface of a substance. Thus, in the invention recited in the claims, only electrodes surrounding the metal sample are cooled, not the holder or the metal sample itself. Neither JP '220 or Scuitto, alone or in combination, disclose these features.

For example, in Fig. 1, the sample S functions as the cathode 2. Thus, the sample S is the cathode 2. The sample holder 20 holds the sample S, and is not part of the cathode 2 (sample S). By contrast, in Fig. 2, the sample S functions as an anode when an opposite charge of polarity is applied. Thus, the sample S is the anode 1. In both examples, the metal sample S is conducted with the same charge of polarity that is applied to the sample holder 20.

Whichever plus charge or minus charge is applied to the sample holder 20, the sputtering can be achieved between the held sample S and the electrodes surrounding the sample holder 20. See page 5, lines 12-18. For example, in the invention recited in claims 2-3, at least one electrode other than the electrode holding the metal sample S is cooled in order

to prevent the adsorption of contaminants on a surface of the metal sample. See page 5, line 2 from the bottom to page 6, line 2.


For at least these reasons, it is respectfully submitted that claims 13, 17, 19 and 20 are distinguishable over the applied art. Claims 14 and 18, which depend from claim 13, are likewise distinguishable over the applied art for at least the reasons discussed, as well as for the additional features they recite. Withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

## **II. Conclusion**

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-11, 13-14 and 17-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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